

PARALLEL INTERCONNECT  
IMPLEMENTED WITH HARDWARE

Abstract

A router interface that increases the data transmission rate between optical data routers is provided. In particular, a parallel router interface according to this invention includes: (1) a plurality of parallel channels, (2) a parallel-to-serial converter, and (3) a plurality of framers. Each of the channels can transmit a block of bits at a time, and each block forms at least a portion of a packet. The parallel-to-serial converter converts each of the blocks to a serial stream of data and provides the stream to a serial interface. The plurality of framers are coupled to the serial interface and are each associated with one of the parallel channels.